CLAIMS

1. A method for determining a scent or taste profile of a user consisting in:

storing for each of a set of products chosen among products for which a database (1) contains smell of taste prints constituted by a set of measurements given by smell or taste electronic sensors, a rating (SN) given by the user; and

automatically calculating weighting coefficients constituting said profile and respectively affected to said sensors measurements, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of satisfaction notes.

2. The method of claim 1, in which the weighting coefficient of the user's profile are determined by minimizing the result of the following formula by successive approximation of sets of weighting coefficients α_j:

$$\sum_{h=1}^{q} \left(SP_h - \sum_{j=1}^{n} \left(\alpha_j \cdot MV_{j,h}\right) \right)^2 ,$$

where SP_h designates the rating given by the user for the product of rank h of said set of q products, where α_j designates the weighting coefficient of rank j affected to the product of rank j of the smell or taste prints, and where $MV_{j,h}$ designates the scores of rank j of the smell print of perfume of rank h.

3. The method of claim 1, in which each satisfaction note range from 1 to 5, and preferably from 1 to 3.

4. The method of claim 1, consisting in asking the user for giving an additional rating for an additional product selected, on the basis of the already given ratings, as being the product for which the notation of the user will be the most relevant for the user profile.

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5.   The method of claim 4, in which the selection of the additional product is made by maximizing the following formula over all the products:

$$\sum_{j=1}^{m} \left(\sum_{L=1}^{NL} \frac{f(L) \cdot \left| \alpha_{j,s} - \alpha_{j,s',L} \right|}{\alpha_{j,s}} \right),$$

where NL is the total number of values for the ratings L of the user; $\alpha_{j,s}$ is the set of coefficients α_j already calculated on the basis of the q perfumes already noted by the user; $\alpha_{j,s',L}$ is the set of coefficients α_j calculated for the set of q+1 perfumes under the hypothesis of a note L for the perfume of rank q+1; and f(L) is an optional function of weighting of the different coefficients α_j.

6.   A method for predicting a product adapted to a user on the basis of its smell or taste, using a user profile determined according to any of claims 1 to 5, consisting in:

estimating a rating for products for which the database contain the scent of taste prints, by applying the weighting coefficients to the scent or taste prints; and

selecting among the products, a subset on the basis of the estimated rating.

7.   The method of claim 6, in which the estimated rating for each product is obtained by applying the following formula:

$$IP_i = \sum_{j=1}^{n} \alpha_j \cdot MV_{i,j},$$

where IP_i designates the note estimated for the product P_i of the database, where α_j designates the weighting coefficient of rank j affected to the product of rank j of the smell or taste print according to the user's profile, and where $MV_{i,j}$ designates the measurement of rank j of the smell or taste print of product of rank i.

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8.   The method of claim 6, in which the product of said subset are selected for having an estimated rating close to the highest or lowest rating with a predetermined margin, preferably of ten percents.

9.   The method of claim 6, in which a predetermined number of products having the highest or lowest estimated rating constitutes said subset.

10.   The method of any one of claims 6 to 9, applied to perfumes selection.

11.   The method of any one of claims 6 to 9, applied to wines selection.

12.   A system for determining a scent or taste profile of a user comprising:

a database (1) containing smell of taste prints constituted by a set of measurements given by smell or taste electronic sensors;

a memory element for storing for each of a set of products chosen among the products contained in said database;

a calculator of weighting coefficients constituting said profile and respectively affected to said sensors, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of ratings.

13.   A system for predicting a product adapted to a user on the basis of its smell or taste, using a system according to claim 12, comprising:

an estimator to determine estimated ratings for products that have their smell or taste print in the database, by applying the weighting coefficients to the scent or taste prints; and

a selector for selecting among the products, a subset on the basis of the estimated ratings.